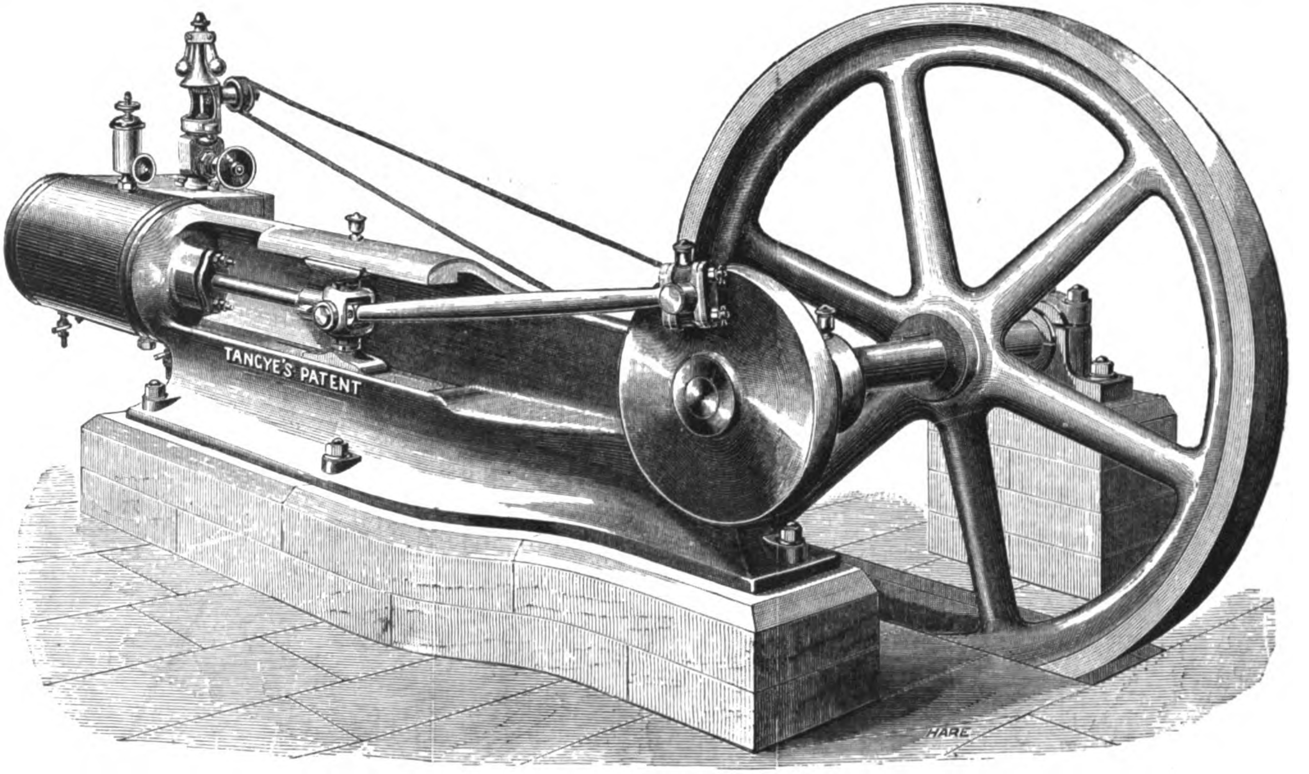
TANGYE'S HIGH-PRESSURE EXPANSIVE STEAM ENGNE.

VIENNA, 1873.

LONDON, 1873.



THE DESIGN, WORKMANSHIP, and LOW PRICE of these ENGINES have called forth UNIVERSAL ADMIRATION, and UPWARDS OF FOURTEEN HUNDRED of them HAVE BEEN SOLD since their introduction in DECEMBER, 1869.

In this Engine the working parts are considerably reduced in number, as compared with Horizontal Engines generally, rendering it far more durable and compact. The bed plate, front cylinder cover, cross-head guides, and plummer block for crank-shaft bearing, are all cast in one piece, the cylinder with its valve chest being bolted to the end of the bed. The cross-head slippers and connecting-rod ends are made adjustable, so that any wear can be readily taken up. The fly wheel, cylinder end, connecting rod, and crank plate, are all bright. All the parts are made to Whitworth's Gauges, and the material and workmanship are of the highest class throughout.

The Governor is of a very special description, and combines in the small space usually occupied by the ordinary steam stop-valve, a governor, throttle valve, and stop valve complete. It is exceedingly sensitive, simple, and compact.

FOR PRICES SEE NEXT PAGE.

TANGYE BROTHERS & HOLMAN,

10, LAURENCE POUNTNEY LANE, LONDON, E.C.

PRICES AND PARTICULARS OF
TANGYE'S NEWLY-DESIGNED HORIZONTAL HIGH-PRESSURE STEAM ENGINES.

ILLUSTRATED ON PRECEDING PAGE.

Size	B	C	D	E	G	H	J	K	M
Nominal Horse-power	TWO	THREE	FOUR	SIX	EIGHT	TEN	FOURTEEN	EIGHTEEN	TWENTY-FIVE
	£	£	£	£	£	£	£	£	£
Price of Engine	32	38 15*s.*	46	70	90	115	145	185	200
Feed Pump, with Gun-Metal Working Parts, extra	3	3 15*s.*	4	5 10*s.*	6	7 10*s.*	8	10	15
Variable Expansion Gear, extra	..	..	10	12	13	14	15	16	18
Diameter of Steam Cylinder	4 in.	5 in.	6 in.	8 in.	9 in.	10 in.	12 in.	14 in.	16 in.
Length of Stroke	8 ,,	10 ,,	12 ,,	16 ,,	18 ,,	20 ,,	24 ,,	28 ,,	28 ,,

PRICES AND PARTICULARS OF TANGYE'S COUPLED HORIZONTAL HIGH-PRESSURE STEAM ENGINES.

Size	B	C	D	E	G	H	J	K	M
Nominal Horse-power	FOUR	SIX	EIGHT	TWELVE	SIXTEEN	TWENTY	TWENTY-EIGHT	THIRTY-SIX	FIFTY
	£	£	£	£	£	£	£	£.	£
Price of Pair of Engines	65	79	94	142	183	235	295	370	410
Feed Pump to each, extra	6	7 10*s.*	8	11	12	15	16	20	30
Steam-jacketed Cylinders, extra	..	..	6	7	8	included	included	included	included
Variable Expansion Gear to each, extra	..	..	20	24	26	£28	£30	£32	£36
Diameter of Cylinders	4 in.	5 in.	6 in.	8 in.	9 in.	10 in.	12 in.	14 in.	16 in.
Length of Stroke	8 ,,	10 ,,	12 ,,	16 ,,	18 ,,	20 ,,	24 ,,	28 ,,	28 ,,

The H J K and M sizes have Steam-jacketed Cylinders. Prices of Boilers on application.

PRICES AND PARTICULARS OF TANGYE'S HORIZONTAL HIGH-PRESSURE STEAM ENGINE WITH VERTICAL BOILER.

Size	B	C	D	E	G	H	J
Nominal Horse-power	TWO	THREE	FOUR	SIX	EIGHT	TEN	FOURTEEN
	£	£	£	£	£	£	£
Price of Engine and Boiler complete	75	95	110	150	180	225	280
Diameter of Steam Cylinder	4 in.	5 in.	6 in.	8 in.	9 in.	10 in.	12 in.
Length of Stroke	8 ,,	10 ,,	12 ,,	16 ,,	18 ,,	20 ,,	24 ,,

TANGYE'S WINDING ENGINES FOR COLLIERIES. }
TANGYE'S PUMPING ENGINES. } Prices on application.

PARIS INTERNATIONAL EXHIBITION, 1867.

VIENNA INTERNATIONAL EXHIBITION, 1873.

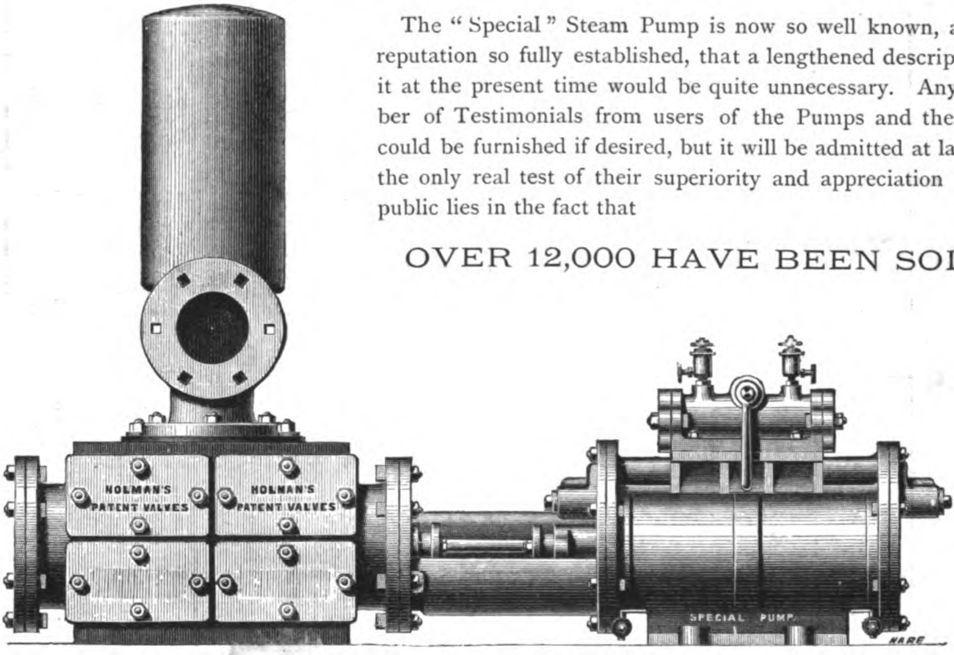
LONDON INTERNATIONAL EXHIBITION, 1874.

CORNWALL POLYTECHNIC SOCIETY, 1867 & 1873.

THE "SPECIAL" DIRECT-ACTING STEAM PUMP.

The "Special" Steam Pump is now so well known, and its reputation so fully established, that a lengthened description of it at the present time would be quite unnecessary. Any number of Testimonials from users of the Pumps and the Press could be furnished if desired, but it will be admitted at last that the only real test of their superiority and appreciation by the public lies in the fact that

OVER 12,000 HAVE BEEN SOLD



The "SPECIAL" Steam Pump is adapted for all the purposes for which Steam-driven Pumps are used. Hot or cold fluids, and semi-fluids of almost any consistency are pumped by it with equal facility. It is economical in first cost, occupies very little space, and the wear and tear is reduced to a minimum, because there is absolutely no extraneous gear.

200 SIZES AND COMBINATIONS OF THESE PUMPS ARE NOW MADE FOR EVERY VARIETY OF PURPOSE.

GREAT REDUCTION IN PRICES—SEE NEXT PAGE.

ALL THESE PUMPS ARE FITTED WITH HOLMAN'S PATENT VALVES,

Which are noiseless in operation, durable in wear, afford a free and unobstructed passage, and are readily renewable when required.

THE "SPECIAL" STEAM PUMP CAN BE WORKED BY COMPRESSED AIR AS WELL AS BY STEAM.

MANY HUNDREDS OF THESE PUMPS ARE BEING USED FOR HIGH LIFTS IN MINES, for which purpose they are made with 21 in., 24 in., 26 in., 28 in., 30 in., or 32 in. Steam Cylinders, and 36 in., 48 in., and 72 in. Stroke.

TANGYE BROTHERS & HOLMAN,
10, LAURENCE POUNTNEY LANE, LONDON, E.C.

REDUCED PRICES OF THE "SPECIAL" STEAM PUMPS,

SUITABLE FOR LOW AND MEDIUM LIFTS UP TO 240 FEET.

Diameter of Steam Cylinder in.	3	3	4	4	4	5	5	5	6	6	6	6	7	7	7	7	7	8	8	8
Diameter of Water Cylinder in.	1½	3	2	3	4	3	4	5	3	4	5	6	3	4	5	6	7	4	5	6
Length of Stroke .. .. .. in.	9	9	9	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Gallons per hour, approximate ..	450	1830	815	1830	3250	1830	3250	5070	1830	3250	5070	7330	1830	3250	5070	7330	9750	3250	5070	7330
REDUCED PRICE	£16	£18	£18	£20	£25	£22 10s	£27 10s	£32 10s	£25	£30	£35	£40	£30	£35	£40	£45	£50	£40	£45	£50

CONTINUED.

Diameter of Steam Cylinder .. in.	8	8	9	9	9	9	9	10	10	10	10	10	10	12	12	12	12	12	12
Diameter of Water Cylinder .. in.	7	8	5	6	7	8	9	5	6	7	8	9	10	6	7	8	9	10	12
Length of Stroke .. .. in.	12	18	12	12	12	18	24	12	12	12	18	24	24	18	18	18	24	24	24
Gallons per Hour, approximate	9750	13000	5070	7330	9750	13000	16519	5070	7330	9750	13000	16519	20000	7330	9750	13000	16519	20000	30000
REDUCED PRICE	£55	£65	£50	£55	£60	£70	£85	£55	£60	£65	£75	£90	£100	£75	£80	£85	£110	£120	£140

CONTINUED.

Diameter of Steam Cylinder .. in.	14	14	14	14	14	14	16	16	16	16	16	18	18	18	18	21	21	24	24	26
Diameter of Water Cylinder .. in.	7	8	9	10	12	14	8	9	10	12	14	9	10	12	14	12	14	12	14	14
Length of Stroke .. .. in.	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	36	36	36	36	48
Gallons per Hour, approximate	9750	13000	16519	20000	30000	40000	13000	16519	20000	30000	40000	16519	20000	30000	40000	30000	40000	30000	40000	40000
REDUCED PRICE	£110	£120	£130	£140	£160	£180	£140	£150	£160	£180	£200	£190	£200	£220	£240	£285	£305	£305	£325	£450

If Brass-lined, or Solid Brass or Gun-Metal Water Cylinders with Copper Air-Vessels, extra, according to size.

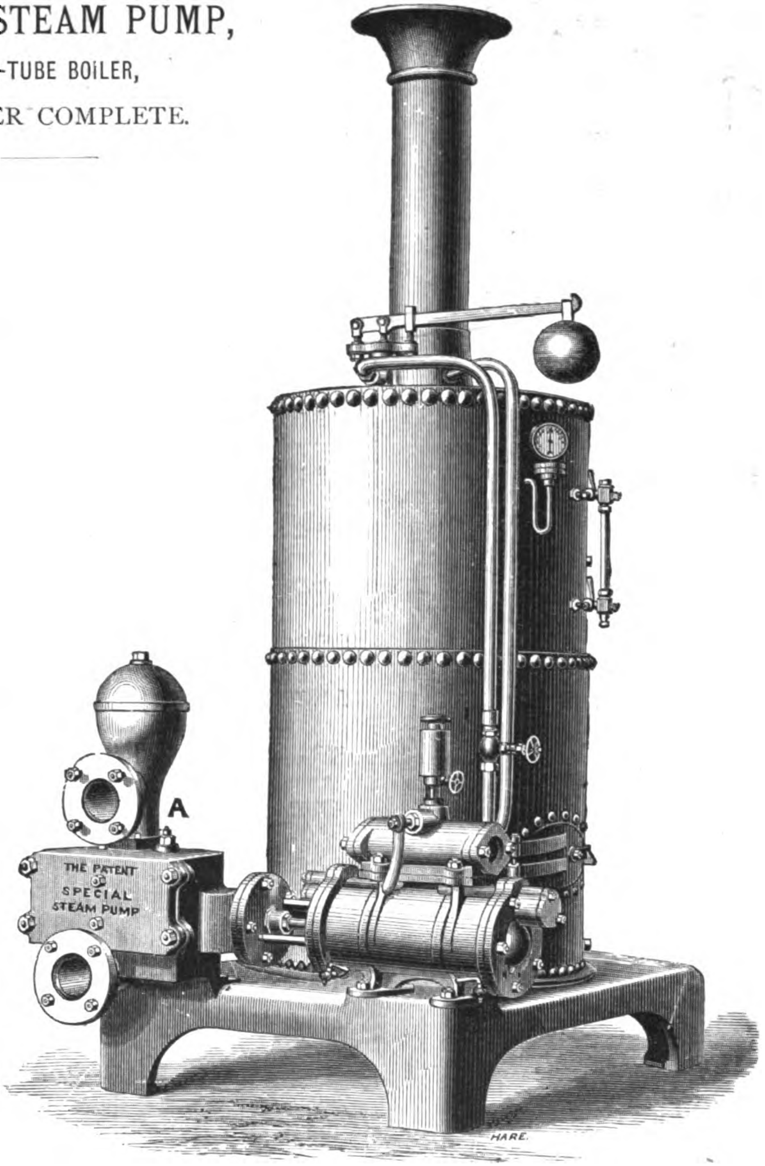
Any combinations can be made between the Steam and Water Cylinders to suit Pressure of Steam and Height of Lift, thus—8 in. Steam and 3 in. Water, or 10 in. Steam and 3 in. Water, and so on. The length of Stroke can also be increased at a proportionate extra charge.

Intending Purchasers of Steam Pumps would do well to observe the great length of stroke, short steam cylinder, and short piston of the "Special" Steam Pump, as compared with the short stroke, long steam cylinder, and long piston of the pumps of other Makers, as the efficiency and durability of the machine, and the space occupied by same, greatly depends upon this. The advantage of long strokes will be obvious when Purchasers are reminded that each set of suction and delivery valves of a "Special" Steam Pump with 24-inch stroke, running at 120 feet per minute, would open and close only 30 times per minute, as against 120 times per minute in a Pump with only 6-inch stroke performing same duty.

THE "SPECIAL" STEAM PUMP,

WITH VERTICAL CROSS-TUBE BOILER,

AND BOILER FEEDER COMPLETE.



Amongst the many uses for which the "Special" Steam Pump with Boiler is eminently adapted and has been successfully applied, the following may be mentioned, viz.:

For filling Tanks from Wells, or other sources, for Locomotives at Railway Stations.

For supplying water from a Stream or Well to Mansions, Farms, Asylums, Hospitals, Hotels, Public Buildings, Breweries, Paper Mills, Dye Works, and Factories generally.

For supplying water from Wells or other sources, to Villages and small Towns.

For Pumping in Quarries.

For use as an auxiliary Pump in Mines.

For pumping out Coffer-dams.

For placing on board a Barge, and irrigating land on either side of a River.

For placing on board a Barge, and pumping out and raising sunken Ships.

For pumping fresh water from a Tank Boat into Ships.

For pumping salt water from the Sea, to supply Public Baths, Aquariums, &c.

SIZES AND PRICES OF THE "SPECIAL" STEAM PUMP WITH BOILER, &c., COMPLETE.

Dia. of Steam Cylinder....in.	3	4	4	4	6	6	6	6	7	7	7	8	8	8	10	12
Dia. of Water Cylinder....in.	1½	2	3	4	3	4	5	6	5	6	7	6	7	8	8	9
Length of Stroke ....in.	9	9	12	12	12	12	12	12	12	12	12	12	12	18	18	18
Gallons per hour	450	815	1830	3250	1830	3250	5070	7330	5070	7330	9750	7330	9750	13000	13000	16519
Dia. of Suction & Delivery . in.	1	1½	2	3	2	3	3½	4	3½	4	5	4	5	6	6	7
PRICE { Complete with Boiler and fittings. Injector Boiler Feeder £7 extra. }	£ 56	£ 60	£ 65	£ 70	£ 75	£ 85	£ 100	£ 105	£ 105	£ 110	£ 115	£ 125	£ 130	£ 145	£ 175	£ 195

If Brass-lined, or Solid Brass or Gun-Metal Water Cylinders with Copper Air-Vessels, extra, according to size.

TANGYE BROTHERS & HOLMAN,
10, LAURENCE POUNTNEY LANE, LONDON, E.C.

Holman's Patent Self-acting Exhaust Steam Condensers,

FOR ALL KINDS OF STEAM PUMPS AND HIGH-PRESSURE STEAM ENGINES,

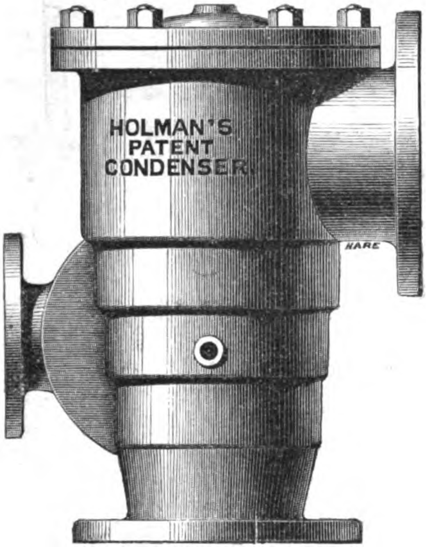
SAVES 20 TO 50 PER CENT. OF FUEL.

These Condensers are made to suit any kind and size of Steam Pump. They form a part of the suction pipe of the Pump, and while they effectually condense the exhaust Steam, they produce a vacuum of about 11 lb. per square inch on the steam piston, giving a saving of from 20 to 50 per cent. in fuel, and increasing to a corresponding extent the economy and efficiency of the Pump. In mining operations, and to users of Steam-pumping and other High-pressure Steam Engines, these Condensers will be of great value. All Boiler Feeders are recommended to be fitted with these Condensers, as the exhaust steam is utilized in heating the feed water and returned with it into the Boiler.

TURNS WASTE STEAM INTO GREAT POWER.

PREVENTS ALL ESCAPE OF STEAM IN MINES AND ELSEWHERE.

CONTAINS NO STUFFING BOXES.



PERMITS A CONTINUOUS FLOW OF WATER.

SAVES HALF ITS COST IN CONNECTIONS AND PIPES.

OCCUPIES NO EXTRA SPACE.

IS ENTIRELY SELF-ACTING.

The accompanying Testimonial gives one example of the great advantage gained by the Patent Condenser:

Norley Colliery, Wigan.
16th October, 1874.

MESSRS. TANGYE BROS. & HOLMAN,

Gentlemen,—I have great pleasure in recording my entire satisfaction with the working of Holman's Patent Steam-Pump Condenser, which you have supplied to us.

The complete condensation of the Steam is, apart from its value in the strict economic sense, a most valuable feature in the Drainage of Underground Workings; the perfect manner in which this important result is accomplished by your Condensers is extremely creditable to you, and merits the thanks and commendation of the Mining Engineer. When we start the "Special" Steam Pump the Condenser commences working automatically, and maintains a constant vacuum of 10¾ lb. per square inch even when we run the pump upwards of 80 strokes per minute. It may perhaps be interesting to you to know that when we were running the pump at 84 strokes (168 feet) per minute, the steam gauge indicating a Steam-pressure of 36 lb. per square inch 80 yards from the pump, and the Condenser vacuum gauge (on the exhaust pipe) indicating a steady vacuum 21½ inches, I turned the exhaust steam from the Condenser into the atmosphere, when the speed at once fell to 44 strokes per minute.

The working economy thus shown is really so great that the cost of the Condenser must be saved in a very short time indeed.

(Signed) J. THOMPSON.

Under date Nov. 19th, 1874, Mr. THOMPSON *writes, supplementing the above Testimonial with the following remarks:*

"I have to-day measured accurately the delivery of the water, first with the Condenser at work, and subsequently discharging the exhaust steam into the atmosphere, without any perceptible difference in the quantity of water delivered, the Pumps running the same number of strokes in each case. (The steam being turned down to a lower pressure when the Condenser was put in action in order that the Pump should run the same speed with as without the Condenser.) I repeated the Tests several times with precisely the same result, one test being made at the high speed of 120 strokes per minute."

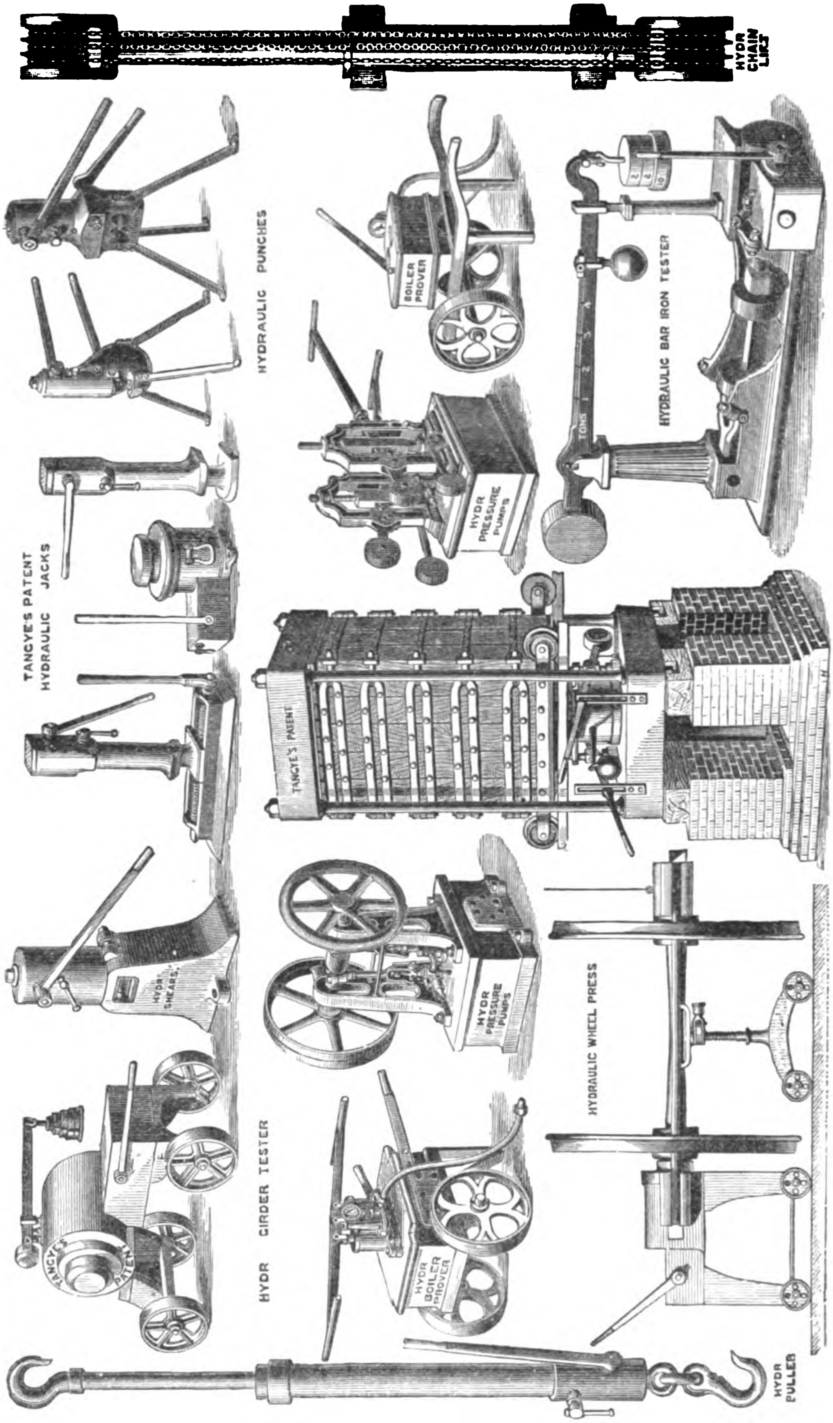
The Steam Cylinder of the Pump referred to in the foregoing testimonial is double the diameter, or four times the area of the Pump Cylinder, hence a gain of 10¾ lb. per square inch on the Steam Piston gives a useful effect of 43 lb. per square inch on the Water Piston; thus a lifting power equal to about 90 feet head is obtained by the action of the Condenser alone, and a proportionate saving of fuel effected.

The Condenser referred to in the above testimonial was of sufficient power to condense the steam from a much larger Cylinder, so that the economy will be greater in High-lift Engines, where larger Steam Cylinders, in proportion to the size of the Pump Cylinders, are used.

Prices, 30*s.* to 40*s.* per inch diameter of Steam Cylinders, according to the relative diameters of Steam and Pump Cylinders for which Condensers are required.

TANGYE BROTHERS & HOLMAN,
10, LAURENCE POUNTNEY LANE, LONDON, E.C.

TANGYE'S SPECIALITIES IN HYDRAULIC MACHINERY.



FOR PRICES SEE NEXT PAGE.

TANGYE BROTHERS & HOLMAN,
10, LAURENCE POUNTNEY LANE, LONDON, E.C.

HYDRAULIC MACHINERY.

PRICES OF TANGYE'S PATENT HYDRAULIC JACKS.

To lift 4	6	8	10	12	15	20	30	40	50	60 Tons.
£6.	£7 10*s.*	£8 10*s.*	£10.	£12.	£13 10*s.*	£16.	£18.	£20.	£23 10*s.*	£27 10*s.*

Traversing 4 to 12 tons £3, and 12 to 20 tons £5 extra.

PRICES OF TANGYE'S PATENT HYDRAULIC SHIP-JACKS.

To lift 20	35	50	70	100	150	200 Tons.
£10 10*s.*	£13 10*s.*	£16 10*s.*	£18 10*s.*	£20.	£25.	£30.

PRICES OF TANGYE'S PATENT HYDRAULIC PUNCHING BEARS.

To punch ¾ in. thro' ½ in.	1 in. thro' ¾ in.	1¼ in. thro' 1 in.	1 in. Steel Rails.
£10.	£15.	£26.	£35.

Inclusive of one Punch and Die. Extra Punches and Dies, 10*s.* pair.

PRICES OF TANGYE'S PATENT HYDRAULIC PUNCHING BEARS, FOR ANY SECTION OF RAILS.

To punch ¾ in. thro' ½ in.	1 in. thro' ¾ in.	1¼ in. thro' 1 in.	1 in. Steel Rails.
£14.	£20.	£30.	£38.

Inclusive of one Punch and Die. Extra Punches and Dies, 10*s.* pair.

PRICES OF TANGYE'S PATENT HYDRAULIC SHEARS.

To cut up to 1½ in. square or round, or 3 in. by ½ in. Bar by hand	£16 0 0
„ 2 in. „ „ 4 „ ¾ „ „	21 0 0

Weight, 230 and 380 lb. respectively.

PRICES OF TANGYE'S PATENT HYDRAULIC GIRDER-TESTER.

To test to 50	100	150	200 Tons.
£25.	£35.	£45.	£70.

PRICES OF TANGYE'S BOILER PROVERS.

Tripod Boiler Prover, to test to 200 lb. square in., including Gauge and flexible Suction and Delivery Pipe, £8.

Barrow Boiler Prover, to test to 200 lb. square inch, with Cast-iron Cistern, mounted on Barrow, Gauge, and flexible Suction and Delivery Pipe, £14 10*s.*

These Boiler Provers can be made for any greater pressure.

PRICES OF TANGYE'S PATENT HYDRAULIC WHEEL-PRESSES.

For forcing railway carriage, waggon, and locomotive wheels on and off their axles.

50	75	100	150 tons power.
£40.	£45.	£90.	£120.

HYDRAULIC TESTING MACHINES,

For testing bar iron, chains, anchors, railway couplings, cast-iron pipes, railway springs, &c.

PRICES ON APPLICATION.

HYDRAULIC LIFTS, ACCUMULATORS, AND PRESSURE PUMPS

Of every description. Prices according to requirements.

HYDRAULIC PRESSES AND PRESSURE PUMPS

Suitable for all parts of the world, for baling cotton, wool, jute, hay, Esparto grass, hides, rags, &c.
Also for the use of packers, bookbinders, printers, paper makers, &c., &c.
Prices according to size and description required.

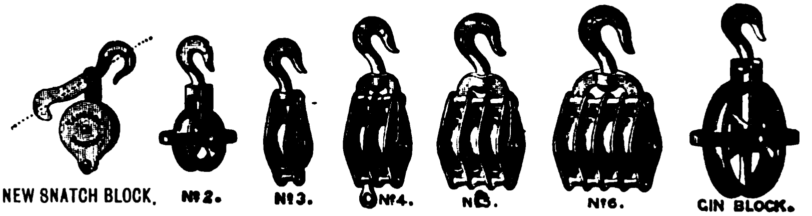
HYDRAULIC OIL MACHINERY OF EVERY DESCRIPTION.

TANGYE BROTHERS & HOLMAN,
10, LAURENCE POUNTNEY LANE, LONDON, E.C.

BEST WROUGHT-IRON (LONDON PATTERN) PULLEY BLOCKS.

For ⅜ inch to 3¼ inch diameter ROPE, or for 3/16 inch to ⅞ in. CHAIN.

Bright Sheaves and Turned Pins.


NEW SNATCH BLOCK.
No 2.
No 3.
No 4.
No 5.
No 6.
GIN BLOCK.

All Machine-made.

All Parts Interchangeable.

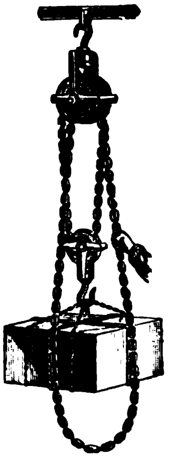
Several Thousand in Stock.

Diameter of Sheave and Width of Grove .. .. .. In.	2½ × ⅜	3½ × ½	4 × ⅝	4½ × ¾	5 × ⅞	6 × 1	7 × 1¼	8 × 1½	9 × 1¾	10 × 2	11 × 2¼	12½ × 2½	14 × 2¾	15 × 3	16 × 3¼
Snatch Block, Price of ea.	6/0	6/0	7/0	8/6	11/6	13/6	16/6	21/6	32/0	60/0	80/0	110/0	140/0	170/0	210/0
1 Sheave Block, ,, ,,	4/0	4/6	5/9	7/6	10/0	11/6	14/0	19/0	30/0	52/6	72/0	98/0	110/0	130/0	164/0
2 ,, ,, ,, ,,	5/6	7/0	8/6	11/0	15/6	17/0	24/6	35/6	50/0	98/0	124/0	144/0	170/0	203/0	242/0
3 ,, ,, ,, ,,	7/0	8/6	10/6	14/0	19/6	21 6	30/6	48/6	70/0	127/0	157/0	190/0	222/6	262/0	310/0
4 ,, ,, ,, ,,	8/6	10/0	12/6	18/6	25/6	28/6	46/0	63/0	92/6	157/0	190/0	222/6	280/0	352/0	400/0

WESTON'S PATENT DIFFERENTIAL PULLEY BLOCKS.

NEARLY 100,000 SETS HAVE BEEN SOLD.

Adopted in all the principal Workshops in the World.



Tested to	Price of Blocks per Set.	If Fitted with Spocket Wheel.	Bright Chain per Foot.
5 cwt.	12/6	..	0/6
10 ,,	20/0	..	0/6
12 ,,	20/0	..	0/7
20 ,,	30/0	..	0/9
30 ,,	40/0	..	0/10
40 ,,	50/0	75/0	0/11
60 ,,	100/0	110/0	1/1
80 ,,	120/0	135/0	1/3

WESTON'S BLOCKS WITH TANGYE'S GEAR.

WESTON'S BLOCKS WITH TANGYE'S GEAR

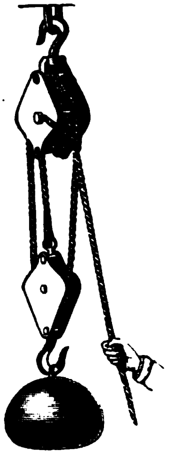
Tested to	Price of Blocks per Set.	Bright Chain per Foot.
4 tons	135/0	1/3
5 ,,	200/0	1/6
6 ,,	240/0	2/4
8 ,,	320/0	3/0
10 ,,	400/0	3/6

ROPE EXTRA.

TANGYE'S SELF-SUSTAINING ROPE PULLEY BLOCKS.

(HEWITT AND GOFF'S PATENT.)

Numerous applications having, from time to time, been received by Messrs. TANGYE for a Self-sustaining Pulley Block, quicker in action than Weston's Differential Pulley Block, and fitted with rope instead of chain, have led to the introduction of the annexed, which is confidently recommended as meeting all requirements.

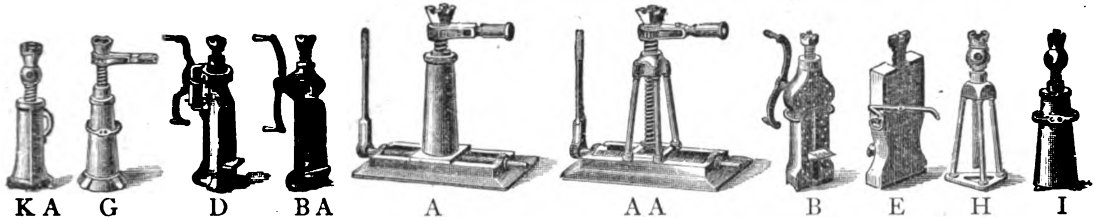


Diameter of Sheave .. .. Width of Groove	2½ in. ⅜ ,,	3¾ in. ½ ,,	4 in. ⅝ in.	4¾ in. ¾ ,,	5 in. ⅞ ,,	6 in. 1 ,,
Price of Pair of 1 and 1-sheave Blocks with rope for 10 feet lift	18/9	20/0	23/9	28/6	36/6	41/6
Price of Pair of 1 and 2-sheave Blocks with rope for 10 feet lift	21/6	24/9	28/6	34/6	46/6	51/0
Price of Pair of 2 and 3-sheave Blocks with rope for 10 feet lift	28/6	32/9	37/6	46/6	63/0	69/6
Price of Pair of 3 and 3-sheave Blocks with rope for 10 feet lift	31/6	36/6	41/9	52/0	70/0	77/6

TANGYE BROTHERS & HOLMAN,
10, LAURENCE POUNTNEY LANE, LONDON, E.C.

LIFTING JACKS AND CRANES.

TANGYE'S IMPROVED SCREW LIFTING JACKS.

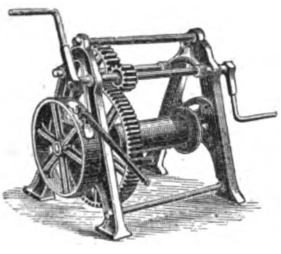


Tons.	1½	2	3	4	5	6	8	10	12	14	15	16	20
	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.
A or AA						6 10	7 0		7 15		9 15		12 5
B or BA		4 10		5 0		5 15	7 0	8 0	9 0			15 0	18 10
D							8 17	10 10	12 0		15 0		
E			7 0	7 10		8 10	9 10						
G						3 17	4 10	5 7	6 10				
H or I	1 4	1 7	1 12	1 18	2 5	3 0	3 13	4 10	5 10	6 7		6 17	
KA	17*s.* 6*d.*	1 0		22*s.* 6*d.*	1 6	1 10	2 0	2 10					

TANGYE'S IMPROVED HOISTING CRABS.

SINGLE PURCHASE.

To lift with 2 & 3 Sheave Pulley Blocks.	PRICE without Break.	PRICE with Break.
	£ s. d	£ s. d.
2 Tons.	3 0 0	4 2 6
3 ,,	3 7 6	4 12 6
4 ,,	4 5 0	5 10 0
5 ,,	5 0 0	6 10 0
6 ,,	6 5 0	7 15 0
9 ,,	7 5 0	8 15 0

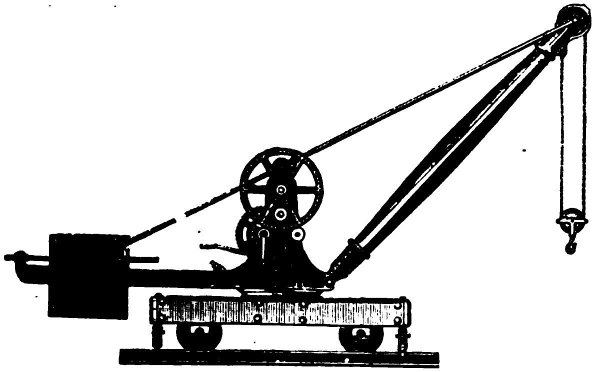


Brass Bushing, extra.

DOUBLE PURCHASE.

To lift with 1 & 2 Sheave Pulley Blocks.	PRICE without Break.	PRICE with Break.
	£ s. d.	£ s. d.
4 Tons	5 5 0	6 10 0
5 ,,	6 0 0	7 10 0
6 ,,	7 7 6	8 17 6
9 ,,	8 5 0	9 17 6
12 ,,	10 0 0	12 0 0
15 ,,	13 12 0	15 15 0
18 ,,	17 5 0	19 10 0
24 ,,	21 0 0	23 10 0

TANGYE'S PORTABLE HAND-CRANE
FOR RAILWAYS OR ROADS.

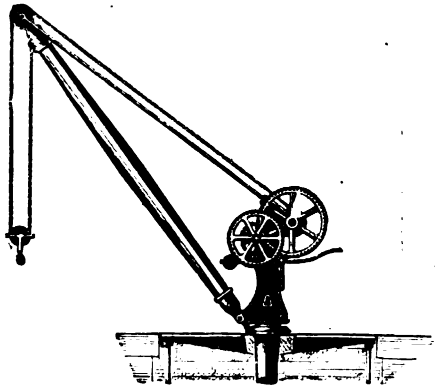


PRICES.

To lift		Feet Radius	
To lift	12 cwt.	8 Feet Radius	£40
,,	1 ton	8 ,, ,,	45
,,	2 ,,	10 ,, ,,	65
,,	3 ,,	12 ,, ,,	95
,,	4 ,,	12 ,, ,,	120
,,	5 ,,	14 ,, ,,	145
,,	6 ,,	14 ,, ,,	170
,,	10 ,,	14 ,, ,,	250
,,	12 ,,	14 ,, ,,	275

Wrought-iron Clips for Rails, from 30*s.* to 70*s.* per set extra.

TANGYE'S HAND WHARF CRANE.



PRICES.

To lift	12 cwt.	8 Feet Radius	£30
,,	1 ton	8 ,, ,,	38
,,	2 ,,	10 ,, ,,	50
,,	3 ,,	12 ,, ,,	66
,,	4 ,,	12 ,, ,,	85
,,	5 ,,	14 ,, ,,	110
,,	6 ,,	14 ,, ,,	135
,,	8 ,,	14 ,, ,,	160
,,	10 ,,	14 ,, ,,	195

TANGYE BROTHERS & HOLMAN,
10, LAURENCE POUNTNEY LANE, LONDON, E.C.